

BILL NO. S-92-01-15

SPECIAL ORDINANCE NO. S-16-92

AN ORDINANCE approving the awarding of Reference #5037 by the City of Fort Wayne, Indiana, by and through its Department of Purchasing and INTERGRAPH CORPORATION for the Water Pollution Control Engineering Department.

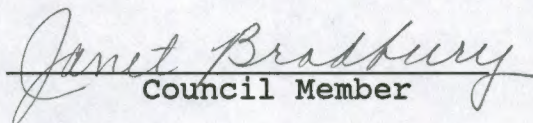
NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF FORT WAYNE, INDIANA;

SECTION 1. That Reference #5037 between the City of Fort Wayne, by and through its Department of Purchasing and INTERGRAPH CORPORATION for the Water Pollution Control Engineering Department, respectfully for:

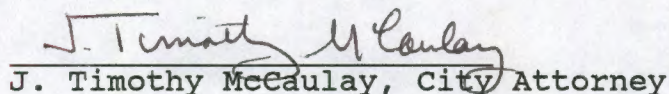
the purchase of hardware and software for the GIS system for the Water Pollution Control Engineering Department;

involving a total cost of Thirty-Two Thousand Nine Hundred Five and no/100+/- (\$32,905.00+/-), all as more particularly set forth in said Reference #5037 which is on file in the Office of the Department of Purchasing, and is by reference incorporated herein, made a part hereof, and is hereby in all things ratified, confirmed and approved.

SECTION 2. That this Ordinance shall be in full force and effect from and after its passage and any and all necessary approval by the Mayor.


Council Member

APPROVED AS TO FORM
AND LEGALITY


J. Timothy McCaulay, City Attorney

REFERENCE NO.:	5037
DEPARTMENT:	WPC ENGINEERING
DATE:	01/14/92
ITEM/SERVICE:	HARDWARE/SOFTWARE
ADVERTISED BID:	YES
DATES ADVERTISED:	11/22/91 & 11/29/91
DATE OPENED:	12/12/91
WRITTEN QUOTE:	
DATE DUE:	
VERBAL QUOTE:	
SINGLE SOURCE:	
NO. OF VENDORS NOTIFIED:	3
NO. OF VENDORS RECEIVING BID:	1
NO. OF VENDORS RETURNING BID:	1
NO. OF VENDORS DISQUALIFIED:	0
NO. OF VENDORS NOT RESPONDING:	0
DATE SENT TO DEPT FOR RECOMM:	12/12/91
DATE RECOMM RECEIVED BACK:	12/31/91
DATE SENT TO LAW DEPARTMENT:	01/02/91
INTRODUCTION DATE:	1/14/92
DISCUSSION DATE:	1/21/92
PASSAGE DATE:	1/28/92

REFERENCE NO. 5037
GIS EXPANSION
12/12/91

ITEM/DESCRIPTION	INTERGRAPH
HARDWARE	\$22,255.00
SOFTWARE	\$10,950.00
HARDWARE MAINT	\$2,196.00
SOFTWARE SUPPORT	\$1,820.00
SHIP/INSTALL	\$664.00 *
SYSTEM DISCOUNT	\$4,980.00
GRAND TOTAL	\$32,905.00
DELIVERY	90 DAYS

*DELIVERY FROM HUNTSVILLE

FRONT PAGE/INVITATION TO BID
DEPARTMENT OF PURCHASING
CITY OF FORT WAYNE, ALLEN COUNTY, INDIANA
ONE MAIN STREET - ROOM 350
PHONE 219-427-1101

BID OPENING DATE 12-12-91 BID REFERENCE # 5037

SEALED BIDS SHOULD BE DELIVERED TO DEPARTMENT OF PURCHASING, ROOM 350, CITY-COUNTY BUILDING UP TO 11:00 A.M. ON OR BEFORE OPENING DATE.

SEALED BIDS WILL BE OPENED PUBLICLY AT 11:01 A.M. IN THE BOARD OF WORKS & SAFETY CONFERENCE ROOM ON THE THIRD FLOOR OF THE CITY-COUNTY BUILDING. "NO LATE BIDS WILL BE ACCEPTED AFTER 11:00 A.M. FOR ANY REASON WHATSOEVER."

THIS INVITATION FOR BID IS FOR HARDWARE & SOFTWARE FOR
GEOGRAPHIC INFORMATION SYSTEM (GIS) EXPANSION.

AND REQUESTED BY WPC ENGINEERING

THIS BID REQUIRES A XX 5% BID BOND, CERTIFIED OR CASHIER'S CHECK OF ALL BIDDERS.

THIS BID REQUIRES A XX 100% PERFORMANCE BOND OF SUCCESSFUL BIDDER(S).

PROMPT PAYMENT DISCOUNTS WILL BE ALLOWED AS FOLLOWS: N/A %
IF PAID WITHIN _____ DAYS.

THIS INVITATION IS ISSUED TO ESTABLISH A CONTRACT TO SUPPLY THE CITY OF FORT WAYNE WITH A COMMODITY OR SERVICE IN ACCORDANCE WITH ACCOMPANYING SPECIFICATIONS.

THE EXECUTION HEREOF BY THE BIDDER IS ACCEPTANCE OF ALL TERMS AND CONDITIONS HEREIN AND IN THAT REGARD THE BIDDER AGREES TO BE BOUND BY SAME AND BE BOUND TO THE AMOUNT OF HIS/HER BID FOR A PERIOD OF NINETY (90) DAYS.

FIRM NAME Intergraph Corporation

STREET ADDRESS One Madison Industrial Park

CITY Huntsville PHONE # (205) 730-2415

* BY *Devin F. Marshall*
REPRESENTATIVE SIGNATURE

* Signature is made on the basis of Terms and Conditions for Sale of Intergraph Equipment and Software as executed between the City and Intergraph on August 14, 1991.

BID, OFFER OR PROPOSAL FOR SALE OR LEASE OF MATERIALS

(Defined at I.C. 36-1-2-9.3)
(Please type or print)

Date: _____

1. Governmental Unit: _____

2. County: _____

3. Bidder (Firm): _____

Address: _____

City/State: _____

4. Telephone Number: _____

5. Agent of Bidder (if applicable): _____

Pursuant to notices given, the undersigned offers bid(s) to _____ (Governmental Unit) in accordance with the following attachment(s) which specify the class or item number or description, quantity, unit, unit price and total amount.

The contract will be awarded by classes or items, in accordance with specifications. Any changes or alterations in the items specified will render such bid void as to that class or item. Bidder promises that he has not offered nor received a less price than the price stated in his bid for the materials included in said bid. Bidder further agrees that he will not withdraw his bid from the office in which it is filed. A certified check or bond shall be filed with each bid if required, and liability for breach shall be enforceable upon the contract, the bond or certified check or both as the case may be.

Signature of Bidder or Agent

BID OFFER OR PROPOSAL

Attach separate sheet listing each item bid based on specifications published by governing body. Following is an example of the bid format:

Class or Item	Quantity	Unit	Description	Unit Price	Amount

NON-COLLUSION AFFIDAVIT

STATE OF INDIANA)
) SS:
 COUNTY)

The undersigned bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to induce anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporation has, have or will receive directly or indirectly, any rebate, fee, gift, commission or thing of value on account of such sale.

Intergraph Corporation
Bidder (Firm)

Thomas F. Marsh
Signature of Bidder or Agent

Subscribed and sworn to before me this 10th day of December, 1991.

My Commission Expires: 4-9-94County of Residence: Madison

Tammy Hyde Frazer
Notary Public

Tammy Hyde Frazer
Notary Public Printed Name

ACCEPTANCE

There now being sufficient unobligated appropriated funds available, the contracting authority of _____ (Governmental Unit) hereby accepts the terms of the attached bid for classes or items numbered _____ and promises to pay the undersigned bidder upon delivery the price quoted for the materials stipulated in said bid.

Contracting Authority Members:

Date: _____

City of Fort Wayne
Cost Summary Form

Vendor Name: Intergraph Corporation

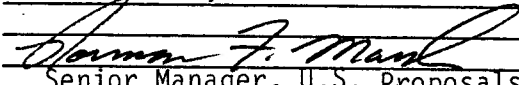
The undersigned propose to furnish the GIS expansion hardware and software components for the price shown below in accordance with the specifications and the response attached hereto. It is expressly agreed that the City has the right to reject any or all bids submitted if such action is deemed in its interest. The total cost for all components as specified by the bid is exactly \$ _____, the breakdown of which is:

Hardware	\$ 22,255
Software	\$ 10,950
Hardware Maintenance (annual)	\$ 2,196
Software Support (annual)	\$ 1,820
Shipping/Installation	\$ TBD FOB Huntsville 664 (Installation)
Other (System Discount)	\$ (4,980)
Total	\$ 32,905

Delivery can be made within 90 days from the receipt of order.

Firm Name: Intergraph Corporation

Address: One Madison Industrial Park
Huntsville, AL 35894-0001

By: 
Title: Senior Manager, U.S. Proposals
Date: Dec. 10, 1991

COST QUOTE FORM DETAIL

Hardware Components	Description	Quantity	Component Price		Annual Maintenance	
			Unit	Extended	Unit	Extended
IP2020-112	InterPro 2020	1	16,900	16,900	1,692	1,692
FTIS143	36 by 48					
	Non-backlit	1	5,000	5,000	504	504
FINF422	Thin Ethernet					
	Transceiver	1	275	275	0	0
MCBL786	5-Meter Drop Cable	1	80	80	0	0
Subtotal:			22,255	22,255		2,196

COST QUOTE FORM DETAIL

Software Components	Description	Quantity	Component Price		Annual Maintenance	
			Unit	Extended	Unit	Extended
SGAZ00500	MicroStation 32	1	3,450	3,450	744	744
SJAV05900	Modular GIS Env.					
	System Nucleus	1	7,000	7,000	840	840
SGAZ08100	Network File System	1	500	500	240	240
Subtotal:			10,950	10,950		1,820

COST QUOTE FORM DETAIL

Support Components	Description	Quantity	Component Price		Annual Maintenance	
			Unit	Extended	Unit	Extended
Hard. Maint. Annual	Annual Maintenance	1	-	2,196	-	-
Soft. Supp. Annual	Annual Maintenance	1		1,820	-	-
Shipping/Installation	FOB Huntsville			TBD		
Other	Installation Only			664		
See Quote Form						
Detail Sheets						
1 and 2 for						
itemized annual						
maintenance costs.						
System Discount				(4,980)		
Subtotal:				4,680		
Grand Total:				32,905		


COST QUOTE FORM DETAIL

Optional Components	Description	Quantity	Component Price		Annual Maintenance	
			Unit	Extended	Unit	Extended
FDSK246	670-Megabyte Disk	1	4,900	4,900	492	492
FDSK301	1-Gigabyte Disk	1	5,500	5,500	804	804
FMEM102	16-Megabyte Memory					
	Upgrade	1	5,600	5,600	648	648
SNAV14016	Informix ESQL/C					
	Embedded SQL					
	for C	1	1,340	1,340	360	360
Total Optional:			17,340			2,304

CERTIFICATE OF
ACTION BY
THE BOARD OF DIRECTORS

I, B. Judson Hennington III, Assistant Secretary of Intergraph Corporation, a Delaware corporation ("Company"), do hereby certify that the Board of Directors of the Company, adopted the following resolution as of April 1, 1991, and that, as of the date of this Certificate, such resolution remains in full force and effect:

RESOLVED, that the Company hereby authorizes Norman F. Marsh to execute, deliver, and, where applicable, perform, for and on behalf of the Company, all proposals and contractual documents.



B. Judson Hennington III
Assistant Secretary
Intergraph Corporation

DATE: April 9, 1991

No. 07-B-08760

KNOW ALL MEN BY THESE PRESENTS:

That American Home Assurance Company, a New York corporation, and National Union Fire Insurance Company of Pittsburgh, Pa. a Pennsylvania corporation, does each hereby appoint

---J. Gregory McCollister, Anne Porter, Luther T. Griffith, Daniel J. Bense, John W. Bradley, Jacqueline M. Schaendorf, Suzanne Mickle: of Atlanta, Georgia---

its true and lawful Attorney(s)-in-Fact, with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business, and to bind the respect company thereby.

IN WITNESS WHEREOF, American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, Pa. have each executed these presents



this 20 day of March, 1991

Mark E. Reagan
Mark E. Reagan, Senior Vice President

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.

On this 20 day of March, 1991

before me came the above named officer of American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, Pa., to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seals of said corporations thereto by authority of his office.

Joseph B. Nozzolo
JOSEPH B. NOZZOLO

Notary Public, State of New York
No. 01-NO4652754

Qualified in Westchester County
Term Expires Jan. 31, 1992

CERTIFICATE

Excerpts of Resolutions adopted by the Boards of Directors of American Home Assurance Company and National Union Fire Insurance Company of Pittsburgh, Pa. on May 18, 1976:

"RESOLVED, that the Chairman of the Board, the President, or any Vice President be, and hereby is, authorized to appoint Attorneys-in-Fact to represent and act for and on behalf of the Company to execute bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, and to attach thereto the corporate seal of the Company, in the transaction of its surety business;

"RESOLVED, that the signatures and attestations of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company when so affixed with respect to any bond, undertaking, recognizance or other contract of indemnity or writing obligatory in the nature thereof;

"RESOLVED, that any such Attorney-in-Fact delivering a secretarial certification that the foregoing resolutions still be in effect may insert in such certification the date thereof, said date to be not later than the date of delivery thereof by such Attorney-in-Fact."

I, Maureen P. Tully, Secretary of American Home Assurance Company and of National Union Fire Insurance Company of Pittsburgh, Pa. do hereby certify that the foregoing excerpts of Resolutions adopted by the Boards of Directors of these corporations, and the Powers of Attorney issued pursuant thereto, are true and correct, and that both the Resolutions and the Powers of Attorney are in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of each corporation



this 10 day of December, 1991

Maureen P. Tully
Maureen P. Tully, Secretary

AIU Insurance Company
American Home Assurance Company
Granite State Insurance Company
The Insurance Company of the State of Pennsylvania
National Union Fire Insurance Company of Pittsburgh, Pa.
New Hampshire Insurance Company



American International Companies

Principal Bond Office
70 Pine Street, New York, N.Y. 10270

BID BOND

(AIA 310)

KNOW ALL MEN BY THESE PRESENTS:

That Intergraph Corporation, as Principal, and
American Home Assurance Company, as Surety, are held and firmly bound
unto The City of Fort Wayne, Fort Wayne Indiana, as Oblige, in the sum of
five percent of total bid Dollars
(), for the payment of which sum, well and truly to be made, the Principal and Surety bind themselves, their
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for Hardware and Software for GIS System expansion

NOW, THEREFORE, if the Oblige shall accept the bid of the Principal and the Principal shall enter into a Contract with the Oblige in
accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with
good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in
the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the
Principal shall pay to the Oblige the difference not to exceed the penalty hereof between the amount specified in said bid and such
larger amount for which the Oblige may in good faith contract with another party to perform the Work covered by said bid, then this
obligation shall be null and void, otherwise to remain in full force and effect.

Signed, sealed and dated December 10, 1991

Paula K. Parker
Witness

Intergraph Corporation

Principal

Seal

By James H. Dorton Treasurer
James H. Dorton
Title

American Home Assurance Company

Surety

Bond No 327

By Suzanne Mickle
Suzanne Mickle,
Agent

3. PRIMARY SYSTEM PROPOSAL

In this section, Intergraph utilizes the numbering scheme from the City of Fort Wayne Invitation To Bid (ITB), beginning with item 3.2. Cost sheets, Appendix A, are also included in this section as requested.

- 16 megabytes of dynamic random access memory (DRAM) with parity, expandable to 64 megabytes using 4- or 16-megabyte expansion modules

Color Graphics Subsystem

- Graphics hardware memory mapped to central processing unit with hardware graphics accelerator (GT)
 - Provides a vector update rate of 360,000 2-D vectors per second and 100,000 3-D vectors per second
 - Includes eight raster memory planes (single-buffered)
 - Allows for the display of 256 colors (chosen from a palette of 16.7 million)
- Color display monitor
 - 19-inch, pedestal-mounted display with a resolution of 1184 by 884 pixels (1-megapixel)
 - Refresh rate of 60 hertz
 - Screen angle adjustable over a 20-degree range; tilts forward 5 degrees and backward 15 degrees from the upright position
 - Screen swivel that allows for rotation of 160 degrees to the left or right of center
 - Screen-viewing controls for brightness and contrast
- ANSI/ISO-standard 142-key keyboard
 - Alphanumeric and numeric keypads with 85 full-travel keys
 - 57 membrane keys (47 user-programmable with two commands per key)
 - Optional up/down encoded mode
 - Keyboard angle tilts up 2, 6.5, or 15 degrees from the desk surface
- 3-button mouse
 - 200 pulses per inch with up/down encoded buttons

Input/Output

- Input/output system memory
 - 256-kilobyte erasable programmable read-only memory (EPROM) private to the input/output system

3.2 New GIS Hardware and Software Components and Specifications

3.2.1 New Hardware Components

3.2.1.1 One (1) InterPro 2020 UNIX Workstation

Intergraph proposes the Interpro 2020 Model IP2020-112. This workstation combines excellent performance with affordability. With its single color monitor, the InterPro 2020 is designed to fit easily on the desk-top. By incorporating reduced instruction set computer (RISC) microprocessor architecture, the InterPro 2020 is rated at 16 million instructions per second (MIPS). In addition, the InterPro 2020 is production-ready to run the world's largest selection of integrated applications.

At the heart of the InterPro 2020 is a 2-board system tailored for excellent performance and high reliability. The 2-board set includes a system board, which features a RISC-based central processing unit with powerful Harvard architecture, plus a highly intelligent input/output system and a single in-line memory module (SIMM) system. The second board provides for high-performance graphics.

The core software provided with the InterPro 2020 includes capabilities for screen management, network communications, and various utilities. This environment provides a solid foundation for multi-function processing and more than 900 applications available from Intergraph and third-party vendors. The InterPro 2020 utilizes the CLIX Operating System, a flexible, interactive, computing environment allows for the simultaneous execution of multiple tasks and processes. It includes numerous programs and routines that provide efficient management for multiple system functions and user applications. Easy-to-build-on programs and tools allow for a customized software environment. Standard, executable programs are easy-to-use and efficiently perform tasks in areas such as file and record management, program development, electronic communications, system utilities, and text processing.

The Intergraph product line provides a wide selection of compatible, high-performance peripherals that increase the efficiency of task-specific operations and allow greater resource sharing in a networked environment. The InterPro 2020 externally supports a variety of peripherals, including disk and tape drives, write once read many (WORM) optical disk drives, plotters, printers, digitizers, menu tablets, and compact disk read only memory (CD-ROM) drives. Several surface-expandable, height-adjustable furniture configurations are also available to accommodate the InterPro 2020 monitor and its associated peripherals.

Central Processor and Memory

- 32-bit RISC microprocessor utilizing Harvard architecture
 - Two separate 4-kilobyte cache and memory management units (CAMMUs), one for data and one for instructions, with on-chip floating-point accelerator

- 340-megabyte, 3.5-inch system disk drive
 - 15-millisecond average seek time
- 3.5-inch, dual-density floppy disk drive
 - 1.44-megabyte/720-kilobyte capacity (formatted)
- Three RS-232 communication ports
 - Asynchronous with transfer speeds of 19.2 kilobits per second
- Small Computer Systems Interconnect (SCSI) interface
 - Daisy-chain connection for optional single-ended SCSI devices
- Parallel output port
 - 8-bit parallel, Versatec/differential interface

Communications

- Network
 - IEEE 802.3 (standard Ethernet) or IEEE 802.3A (Thin Ethernet)
 - Local area network (LAN) with a data transfer rate of 10 megabits per second, requires standard network connection components

System Environment

- CLIX Operating System two user license
 - Berkeley Extensions, including
 - * Fast File System
 - * Symbolic Links
 - * Sockets
- Looking Glass
- Network Queuing System (NQS)
- InterPlot Nucleus
 - Local screencopies
 - Text plots

- X-Window System
- EMACS Screen Editor
- Intergraph Network Core (INC)
- Transmission Control Protocol/Internet Protocol (TCP/IP)
- Xerox Network System (XNS)

3.2.1.2 One (1) 36" X 48" Nonbacklit Digitizer

Intergraph proposes 36- by 48-Inch Digitizing Table (FTIS143) for source document digitizing, as well as design and edit functions. It consists of a "floating menu", a 12-button cursor, a digitizer, and a drafting table base. The menu tablet accommodates standard and user-definable menus and is used together with the cursor to select and initiate pre-programmed commands. The menu and cursor also serve as a means of directly addressing the screen.

Intergraph developed the floating menu to provide operators with maximum flexibility when using the digitizer surface area. By automatically interpreting menu position, the system allows the user to move the menu anywhere on the digitizer surface during system use. The digitizer area may also be used to supplement the floating menu with additional menus for special applications or cell and symbol selection. An optional, 3-button stylus that operates simultaneously with the cursor is available.

Functional specifications of the digitizing table include the following:

- Floating menu tablet
 - Area of 12 by 17 inches
 - Direct mounting on digitizer table surface
 - Easy repositioning without interrupting operations
- Cursor
 - Free-floating, absolute tracking device
 - 12 buttons, with 6 pre-assigned and 6 user-definable
 - Interchangeable use on floating menu tablet or directly on table worksurface
- Digitizer
 - Area of 36 by 48 inches
 - Accuracy of 0.010 inch

3.2.1.3 Network Equipment

The Thin Ethernet Transceiver (FINF422) is an IEEE 802.3- and Ethernet Version 2.0-compatible transceiver which allows any of Intergraph Corporation's workstations or hosts to be connected to a Thin Ethernet network. This transceiver, used in conjunction with the Thin Ethernet Cable (MCBL786), includes all necessary hardware to connect an Intergraph Ethernet node to a Thin Ethernet network.

3.2.2 New Software Components

3.2.2.1 One (1) MicroStation 32

MicroStation 32 (SGAZ00500) is a general-purpose, computer-aided design (CAD) package that meets a broad range of design needs. It runs under CLIX on Intergraph Corporation's integrated family of workstations and is the core graphics software program for a variety of Intergraph applications. MicroStation 32 provides translation-free compatibility with MicroStation on other platforms and with Intergraph Interactive Graphics Design System (IGDS) files. A DXF import/export facility is also provided for communication with other CAD systems.

MicroStation 32 is a 2-D/3-D graphics system for the interactive generation, manipulation, display, and output of graphics data. It is file-based, rather than memory-based, allowing for virtually unlimited file sizes and data protection in case of power loss or system failure.

Drafting Capabilities

MicroStation 32 provides a graphical user interface based on the Open Software Foundation (OSF) Motif standard. It allows commands to be chosen through icon-based tool palettes, pull-down menus, a digitizing tablet menu, or command key-in. Parameters can be entered in easy-to-use dialog boxes. Function keys may also be defined by the user to contain frequently used, user-specified commands. For element manipulation, MicroStation 32 supports two types of command syntax: an abbreviated syntax for experienced operators and an English-like alternative for new or occasional users. Context-sensitive, on-line help is provided to explain each command in detail.

Other drafting capabilities include element placement and manipulation operations and the ability to undo and redo these commands. Commands are provided to allow the user to undo previous element placement and manipulation commands and to redo the most recently undone command.

MicroStation 32 provides built-in rendering features, including constant, Gouraud, and Phong shading. Hidden line removal is provided to enhance these functions. MicroStation 32 also includes advanced surfacing tools for 3-D modeling.

MicroStation 32 features a user-definable, 32-bit database with more than four billion addressable points in each axis, making it ideal for creating high-precision architectural drawings, mechanical designs, engineering drawings, maps, and other drawings and

designs. Hidden-line removal and patterning capabilities further enhance the detail of these drawings.

Automatic and associative dimensioning offers over 30 commands that support industry dimensioning standards, including: ANSI, ISO, DIM, JIS, AS1100, and BSI. User-definable working units allow the use of abstract coordinate systems. Each MicroStation 32 design file contains 63 drawing layers or "overlays" that can be independently controlled by name. The user can view any combination of the 63 overlays and design or edit their contents. Up to 255 reference files can be attached to the active file for scaling, rotating, or clipping. The software offers flexible display and element symbologies, independent of levels, including line styles, line weights (thickness), and color.

Additional Capabilities

MicroStation 32 provides capabilities for multiple views. On a single-screen workstation, MicroStation 32 provides up to eight views, using the virtual screen or screen-swap capability. On a dual-screen workstation, up to eight views may be displayed simultaneously.

MicroStation 32 supports user-definable macros through the MicroStation Development Language (MDL), an application development and customization facility. The MDL environment is designed so that developers are not dependent on platform-specific compilers or user interface tools. Therefore, MDL applications can be easily ported between MicroStation platforms, and multiple MDL applications from different developers can co-exist without conflict.

MicroStation 32 features dynamic update, which continually displays the element, before it is placed or modified, as it will appear when the final data point is entered. The feature can be enabled or disabled on a per-view basis. Dynamic placement is a generalization of the rubber-band line placement mode offered by many CAD packages. With this total visual feedback technique, the operator sees all of the characteristics of the element (such as color and size), before it is placed, minimizing placement errors and time-consuming corrections.

MicroStation 32 also provides special features tailored for detailing design files. A convenient text editor is provided to fill in and edit text strings and enter-data fields. ASCII files can be edited using any text editor on the workstation and can be included as text in a design file.

An interface is provided to several relational database management systems, including Informix, ORACLE, and Intergraph Corporation's Relational Interface System (RIS).

For output, precision plotting on a variety of pen plotters and other output devices is supported directly by MicroStation 32. Output devices supported include selected IOLine, Houston Instruments, JDL-850 GL Dot Matrix, CalComp, and Hewlett-Packard plotters. In addition to the output devices directly supported by MicroStation 32, the entire range of plotters supported by Intergraph Corporation's InterPlot can be used with the purchase of the appropriate software.

3.2.2.2 One (1) Modular GIS Environment (MGE)

The Modular Geographic Information System Environment System Nucleus (MGE/SX)(SJAV05900), built on MicroStation 32 and the Relational Interface System (RIS), is the foundation for the MGE platform. This comprehensive system provides access to common utilities, applications software, and GIS database(s) while accommodating and complementing all workflows. MGE/SX creates, maintains, and analyzes GIS/mapping databases and provides a flexible set of tools for both production and planning environments.

Features

- Provides a project manager for datasets/databases
- Supports database management (relational database access)
- Includes an application product shell (including custom interfaces)
- Supports geographic locating through indices
- Performs feature locating through database searches
- Provides display management through indices
- Maintains distributed data management
- Allows for efficient feature definition and data collection
- Validates, verifies, and cleans up data
- Performs data editing, maintenance, query, and reporting
- Provides user-friendly interfaces to the system, including tutorials, paper menus, keyboard, and cursor menus
- Allows customization through the CLIX command-line interface

Benefits

- Provides a unified environment for all users and applications
- Provides productivity as a standalone station or with multi-node systems
- Grows with application needs by accepting other geographic information system modules
- Orients users to the database automatically

- Provides simple, straightforward data structures for easy manageability
- Allows existing Interactive Graphics Design System (IGDS), MicroStation 32, MicroStation PC, and MicroStation MAC files to be transferred into MGE/SX

3.2.2.3 One (1) Network File System (NFS)

The Network File System (NFS)(SSAZ08100) provides a means to access data which is distributed among various nodes on the same network. It provides transparent file access between computers running under different operating systems across a network, which allows both local and remote file manipulations to be performed simultaneously and independent of the operating system differences.

In the Intergraph environment, users logged onto a workstation may access a file located on other workstations, VAX/MicroVAX-based hosts (server-mode only), or personal computers (client-mode only) without physically copying the file to a local disk.

NFS is defined by a stateless server-client relationship. The server does not remember from one transaction to the next the client, the transaction completed, or the files that were accessed. Because the server is stateless, NFS can be used between a variety of operating systems. Crash recovery is therefore transparent to the user, thus providing failure isolation between servers and clients. If a server should unexpectedly fail, the client would only be affected by a temporary suspension in data transmission until the server recovered. This is also true for the relationship between client failure and server operation.

NFS fully supports file access security to prevent unauthorized file access. System security utilities are provided for both CLIX-, Intergraph Corporation's implementation of AT&T's UNIX System V, Release 3.1, Operating System with Berkeley extensions, and VMS-based files, allowing NFS to establish access authorization for each file.

Features

- Supports file sharing where multiple users can mount and access the same file system concurrently
- Supports multiple operating systems
- Allows access of design files resident on a VAX/MicroVAX-based host workstation

Benefits

- Reduces disk space requirements since only one copy of a file is needed on the network
- Provides data consistency since users on the network can share access to one copy of a file
- Provides security since NFS checks the authorization for each file access operation. (Users can only access files they are allowed to access.)

3.2.3 Miscellaneous Items

No additional hardware, software, or network devices, other than those listed above, will be required to integrate the proposed expansion into the City's existing GIS System.

Delivery and installation of the proposed hardware and software shall be 90 days from receipt of an acceptable purchase order.

4. OPTIONAL HARDWARE AND SOFTWARE

This section follows the organization and numbering sequence of Section 3.2.4 of the Invitation To Bid submitted by The City of Fort Wayne.

3.2.4 Optional Hardware and Software Components

3.2.4.1 One (1) 670 MB External Hard Drive

The 670-Megabyte Disk Drive (FDSK246) is used for storing software and user data for local and/or network access. The disk drive includes a drive motor, power supply, electronics, and a sealed module containing the spindle media, rotary actuator, and start/stop heads. The sealed enclosure of the module provides a contamination-free environment for the recording mechanism. The disk drive has a peak transfer rate of 1.875 megabytes per second and an average seek time of 18 milliseconds.

Features

- Provides reliable recording through contamination-free, sealed-media design
- Provides support over the industry-standard (ANSI) Small Computer Systems Interconnect (SCSI) bus
- Provides industry-standard physical size and mounting
- Provides industry-standard direct current (DC) power supply requirements

3.2.4.2 One (1) 1 GB External Hard Drive

The 1-Gigabyte Disk Drive (FDSK301) is used for storing software and user data for local and/or network access. The disk drive includes a drive motor, power supply, electronics, and a sealed module containing the spindle media, rotary actuator, and start/stop heads. The sealed enclosure of the module provides a contamination-free environment for the recording mechanism. The disk drive has an average seek time of 16 milliseconds.

Features

- Provides reliable recording through contamination-free, sealed-media design
- Provides support over the industry-standard (ANSI) Small Computer Systems Interconnect (SCSI) bus
- Provides industry-standard physical size and mounting
- Provides industry-standard direct current (DC) power supply requirements

3.2.4.3 One (1) 16 MB Main Memory Expansion

The 16-Megabyte Memory Upgrade (FMEM102) provides 16 megabytes of additional memory for an Intergraph workstation/server.

3.2.4.4 One (1) Informix-ESQL/C Embedded SQL for C

Informix-ESQL/C Embedded SQL for C (SNAV14016) allows a programmer to embed Structured Query Language (SQL) database manipulation statements into a C program. This program can then be run through a preprocessor, compiled, linked, and executed.

5. PRODUCT DESCRIPTIONS

This section provides the product descriptions (pamphlets, brochures) requested in the IFB.

Read the first time in full and on motion by Bradbury, seconded by Salvino, and duly adopted, read the second time by title and referred to the Committee on City of Police (and the City Plan Commission for recommendation) and Public Hearing to be held after due legal notice, at the Common Council Conference Room 128, City-County Building, Fort Wayne, Indiana, on _____, the _____, day of _____, 19____, at _____ o'clock _____ M., E.S.T.

DATED: 1-14-92

Sandra E. Kennedy
SANDRA E. KENNEDY, CITY CLERK

Read the third time in full and on motion by Bradbury, seconded by Salvino, and duly adopted, placed on its passage.
PASSED LOST by the following vote:

	AYES	NAYS	ABSTAINED	ABSENT
TOTAL VOTES	<u>7</u>			<u>2</u>
BRADBURY	<u>✓</u>			
EDMONDS	<u>✓</u>			
GIAQUINTA				<u>✓</u>
HENRY				<u>✓</u>
LONG	<u>✓</u>			
LUNSEY	<u>✓</u>			
RAVINE	<u>✓</u>			
SCHMIDT	<u>✓</u>			
TALARICO	<u>✓</u>			

DATED: 1-28-92

Sandra E. Kennedy
SANDRA E. KENNEDY, CITY CLERK

Passed and adopted by the Common Council of the City of Fort Wayne, Indiana, as (ANNEXATION) (APPROPRIATION) (GENERAL) (SPECIAL) (ZONING) ORDINANCE RESOLUTION NO. D-16-92 on the 28th day of January, 1992

ATTEST:

Sandra E. Kennedy
SANDRA E. KENNEDY, CITY CLERK

(SEAL)
Don J. Schmitter
PRESIDING OFFICER

Presented by me to the Mayor of the City of Fort Wayne, Indiana, on the 29th day of January, 1992, at the hour of 1:30 o'clock P. M., E.S.T.

Sandra E. Kennedy
SANDRA E. KENNEDY, CITY CLERK

Approved and signed by me this 3rd day of February, 1992, at the hour of 3:00 o'clock P. M., E.S.T.

Paul Helmke
PAUL HELMKE, MAYOR

BILL NO. S-92-01-15

REPORT OF THE COMMITTEE ON CITY UTILITIES

JANET G. BRADBURY, CHAIRWOMAN
SAMUEL J. TALARICO, VICE CHAIRMAN
LUNSEY, LONG, GIAQUINTA

WE, YOUR COMMITTEE ON CITY UTILITIES TO WHOM WAS

REFERRED AN (ORDINANCE) (~~RESOLUTION~~) approving the awarding
of Reference #5037 by the City of Fort Wayne, Indiana, by
and through its Department of Purchasing and INTERGRAPH CORPORATION
for the Water Pollution Control Engineering Department

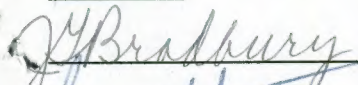
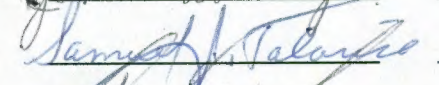
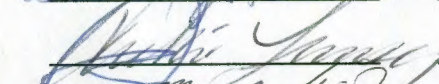
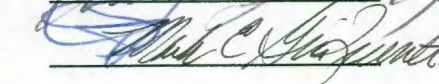
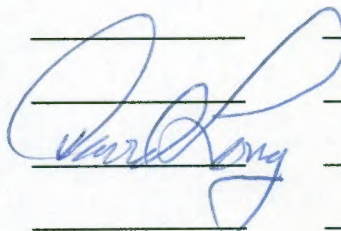
HAVE HAD SAID (ORDINANCE) (~~RESOLUTION~~) UNDER CONSIDERATION
AND BEG LEAVE TO REPORT BACK TO THE COMMON COUNCIL THAT SAID
(ORDINANCE) (~~RESOLUTION~~)

DO PASS

DO NOT PASS

ABSTAIN

NO REC

	_____	_____	_____
	_____	_____	_____
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_____	_____	_____	_____
_____	_____	_____	_____

DATED: 1-28-92

Sandra E. Kennedy
City Clerk

DIGEST SHEET

TITLE OF ORDINANCE: Special

DEPARTMENT REQUESTING ORDINANCE: Purchasing

SYNOPSIS OF ORDINANCE: An ordinance approving the award of Ref. No. 5037 for the purchase of hardware and software for the GIS system for the Water Pollution Control Engineering Department. The cost reflects the most responsive vendor.

IF NOT LOWEST, WHO WAS AND WHY WERE THEY NOT AWARDED:

EFFECT OF PASSAGE: Computer hardware/software for the City's Geographic Information System.

IF REPLACEMENT, WHAT NECESSITATES:

EFFECT ON NON-PASSAGE: Would be unable to complete the comprehensive sewer facility inventory and mapping requirements for the storm water utility and EPA/NPDES permit process.

PRIOR APPROVAL REQUESTED: NO DATE:

MONIES INVOLVED: Intergraph Corp. \$32905.00+/-

PRICE AGREEMENT: PURCHASE ORDER: YES

ACCOUNT INFORMATION: WPC Eng. 514-533-S101-4443

92-01-15.